Scientific and Technical Information Center

SEARCH REQUEST FORM

| . 60 | 101 | | 1- 100 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-------------------------------------------|---------------------------------------------------|
| Requester's Full Name: | 41KK KERCH E | xaminer # : <u>59193</u> Dat | e: 1 24/00 |
| Art Unit: 1624 Phone | e Number: 2- 0663 | Serial Number: | 0/9/9/C |
| Location (Bldg/Room#): 5 CO/ | (Mailbox #): <u> </u> | ************************************** | ****** |
| To ensure an efficient and quality search | , please attach a copy of the cover | theet, claims, and abstract or fill out | the following: |
| Title of Invention: | | | |
| Inventors (please provide full names) | : | | |
| | | | |
| Earliest Priority Date: | | • | |
| Search Topic: Please provide a detailed statement of the s elected species or structures, keywords, syn Define any terms that may have a special t | ionyms, acronyms, and registry num | bers, and combine with the concept or | e searched. Include the utility of the invention. |
| *For Sequence Searches Only* Please inc | clude all periinent information (pare | nt, child, divisional, or issued patent n | umbers) along with the |
| appropriate serial number. all bording | SE | | |
| M-C: | 10) | j = 0 - 20 | |
| | | | • |
| 3 | M(0) | • | |
| | min | | • |
| Compound must | have the | Progress; | |
| | \sim | | Hal . |
| | or | 1 | |
| | , , | | |
| · · · · · · · · · · · · · · · · · · · | 4 | | 2 |
| | 07 | NAC 1 | Hal |
| • | [ct | (6) | |
| | W | | · . |
| | • | | |
| | | | - |
| | | | |
| ********* | **************** | ********** | ***** |
| TAFF USE ONLY | Type of Search | Vendors and cost where ap | pplicable |
| earcher: Leffe | NA Sequence (#) | <u> </u> | Dialog |
| earcher Phone #: | AA Sequence (#) | Questel/Orbit | Lexis/Nexis |
| earcher Location: | Structure (#) | Westlaw | WWW/Internet |
| ate Searcher Picked Up:2]3 0 6 | Bibliographic | In-house sequence syst | ems |
| rate Completed: 213/06 | Litigation | CommercialOligom InterferenceSPDI | Encode/Transl |
| 60 | | Other (specify) | |

=> fil reg

FILE 'REGISTRY' ENTERED AT 14:23:13 ON 03 FEB 2006

=> d his

FILE 'HCAPLUS' ENTERED AT 13:43:49 ON 03 FEB 2006 L1 1 S US20040198700/PN SEL RN

FILE 'REGISTRY' ENTERED AT 13:44:11 ON 03 FEB 2006 L2 21 S E1-E21

FILE 'LREGISTRY' ENTERED AT 13:51:36 ON 03 FEB 2006 L3 STR

FILE 'REGISTRY' ENTERED AT 13:59:57 ON 03 FEB 2006

L4 0 S L3 L5 22 S L3 FUL L6 13 S L5 AND L2 SAV L5 BER910/A

FILE 'HCAPLUS' ENTERED AT 14:22:49 ON 03 FEB 2006 L7 3 S L5

=> d que 17

L3 STR

Cb-G1 Cb 7 Hy Cb X Cb O G2 16
9 C-C 011 12 13 014 15

REP G1=(0-20) C
VAR G2=11/14
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
GGCAT IS PCY UNS AT 14
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS M4-X5 C M1-X2 N AT 11
ECOUNT IS E6 C AT 12
ECOUNT IS E10 C AT 14

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 15

STEREO ATTRIBUTES: NONE

L5 22 SEA FILE=REGISTRY SSS FUL L3

L7 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L5

=> fil hcap

FILE 'HCAPLUS' ENTERED AT 14:23:24 ON 03 FEB 2006

=> d 17 1-3 ibib abs hitstr hitind

ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2004:780695 HCAPLUS 141:277408

DOCUMENT NUMBER: TITLE:

Preparation of azetidinones for use in pharmaceutical compns. for treatment of

vascular diseases

INVENTOR(S):

Burnett, Duane A.; Clader, John W.; Vaccaro,

Wayne

PATENT ASSIGNEE(S):

Schering Corporation, USA

SOURCE:

PCT Int. Appl., 70 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PA | TENT NO. KI | | | | KIN | KIND DATE | | | | APPL: | DATE | | | | |
|---------|-------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|----------------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|--------------------------|--------------------------|
| WO | 2004 | - 0810 | 02 | Al | | | 20040923 | | WO 2004-US6546 | | | | | | 2004 |
| | ·₩: | CA, ES, KE, MG, PT, | CH, FI, KG, MK, RO, | CN, GB, KP, MN, RU, | CO, GD, KR, MW, SC, | CR, GE, KZ, MX, SD, | AU, CU, GH, LC, MZ, SE, | CZ, GM, LK, NA, SG, | DE, HR, LR, NI, SK, | DK, HU, LS, NO, SL, | DM, ID, LT, NZ, SY, | DZ, IL, LU, OM, TJ, | EC, IN, LV, PG, TM, | EE, IS, MA, PH, | EG, JP, MD, PL, |
| | | BW, AM, CZ, NL, GA, | GH, AZ, DE, PL, | GM, BY, DK, PT, GQ, | KE, KG, EE, RO, GW, | LS, KZ, ES, SE, ML, | UZ, MW, MD, FI, SI, MR, | MZ, RU, FR, SK, NE, | SD, TJ, GB, TR, SN, | SL, TM, GR, BF, TD, | SZ, AT, HU, BJ, TG | TZ, BE, IE, CF, | UG, BG, IT, CG, | CH, LU, | CY, MC, |
| CA | 2517 | 571 | | | AA | | 2004 | 0923 | | CA 2 | 004- | 2517 | 571 | | 2004 |
| US | 2004 | 1987 | 00 | | A1 | | 2004 | 1007 | , | US 2 | 004- | 7919 | 10 | | 0303 2004 |
| EP | 1601 | 668 | | | A1 | | 2005 | 1207 | | EP 2 | 004- | 7169 | 53 | | 0303 2004 0303 |
| | R: | MC, | | IE, | SI, | | ES, LV, | | | | | | | | |
| PRIORIT | Y APP | | | | | | | | | US 2 | 003- | 4528 | 09P | ; | 2003 0307 |
| | | | | | | | | | , | WO 2 | 004- | บร65 | 46 | ī | 2004 0303 |

OTHER SOURCE(S): MARPAT 141:277408

GΙ

This invention provides for pharmaceutical formulations and processes for preparing substituted azetidinone compds. of the general form G-L-M [G = azetidinone moiety; L = linking group, such as -0(CH2)3NH- or -0CO(CH2)2NH-; M = pharmaceutically active moiety, such as lovastatin or simvastatin], for use in the treatment of vascular conditions such as atherosclerosis or hypercholesterolemia, and for treating Alzheimer's disease, diabetes, obesity, stroke, demyelination and for lowering plasma levels of sterols, stanols and/or cholesterol and for regulating levels of amyloid β peptides. Thus, azetidinone I was prepared via a multistep synthetic sequence starting from the corresponding phenolic azetidinone II, 3-benzyloxy-1-propanol and lovastatin. The prepared azetidinones were evaluated for hypercholesterolemic activity using Golden Syrian hamster as an in vivo model.

IT 760972-15-4P 760972-16-5P 760972-17-6P 760972-18-7P 760972-19-8P 760972-20-1P 760972-21-2P 760972-22-3P 760972-23-4P 760972-24-5P 760972-25-6P 760972-26-7P

(claimed compound; preparation of azetidinones for use in pharmaceutical compns. for treatment of vascular diseases)

RN 760972-15-4 HCAPLUS

CN

β-Alanine, N-[(3R,5R)-7-[(1S,2S,6R,8S,8aR)-8-(2,2-dimethyl-1-oxobutoxy)-1,2,6,7,8,8a-hexahydro-2,6-dimethyl-1-naphthalenyl]-3,5-dihydroxy-1-oxoheptyl]-, 4-[(2S,3R)-1-(4-fluorophenyl)-3-[(3S)-3-(4-fluorophenyl)-3-hydroxypropyl]-4-oxo-2-azetidinyl]phenyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 760972-16-5 HCAPLUS
CN β-Alanine, N-[(3R,5R)-7-[(1S,2S,6R,8S,8aR)-1,2,6,7,8,8a-hexahydro-2,6-dimethyl-8-[(2S)-2-methyl-1-oxobutoxy]-1-naphthalenyl]-3,5-dihydroxy-1-oxoheptyl]-, 4-[(2S,3R)-1-(4-fluorophenyl)-3-[(3S)-3-(4-fluorophenyl)-3-hydroxypropyl]-4-oxo-2-azetidinyl]phenyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

RN 760972-17-6 HCAPLUS

CN β-Alanine, N-[(3R,5R)-7-[2-(4-fluorophenyl)-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrol-1-yl]-3,5-dihydroxy-1-oxoheptyl]-, 4-[(2S,3R)-1-(4-fluorophenyl)-3-[(3S)-3-(4-fluorophenyl)-3-hydroxypropyl]-4-oxo-2-azetidinyl]phenyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-B

RN 760972-18-7 HCAPLUS

CN β-Alanine, N-[(3R,5S,6E)-7-[4-(4-fluorophenyl)-6-(1-methylethyl)-2-[methyl(methylsulfonyl)amino]-5-pyrimidinyl]-3,5-dihydroxy-1-oxo-6-heptenyl]-, 4-[(2S,3R)-1-(4-fluorophenyl)-3-[(3S)-3-(4-fluorophenyl)-3-hydroxypropyl]-4-oxo-2-azetidinyl]phenyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

PAGE 1-A

F

PAGE 1-B

RN 760972-19-8 HCAPLUS

CN β-Alanine, N-[(3R,5R)-7-[(1S,2S,6R,8S,8aR)-1,2,6,7,8,8a-hexahydro-6-hydroxy-2-methyl-8-[(2S)-2-methyl-1-oxobutoxy]-1-naphthalenyl]-3,5-dihydroxy-1-oxoheptyl]-, 4-[(2S,3R)-1-(4-fluorophenyl)-3-[(3S)-3-(4-fluorophenyl)-3-hydroxypropyl]-4-oxo-2-azetidinyl]phenyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-B

RN 760972-20-1 HCAPLUS

CN Butanoic acid, 2,2-dimethyl-, (1S,3R,7S,8S,8aR)-8-[(3R,5R)-7-[[3-[4-[(2S,3R)-1-(4-fluorophenyl)-3-[(3S)-3-(4-fluorophenyl)-3-hydroxypropyl]-4-oxo-2-azetidinyl]phenoxy]propyl]amino]-3,5-dihydroxy-7-oxoheptyl]-1,2,3,7,8,8a-hexahydro-3,7-dimethyl-1-naphthalenyl ester (9CI) (CA INDEX NAME)

RN 760972-21-2 HCAPLUS

CN Butanoic acid, 2-methyl-, (1S,3R,7S,8S,8aR)-8-[(3R,5R)-7-[[3-[4-[(2S,3R)-1-(4-fluorophenyl)-3-[(3S)-3-(4-fluorophenyl)-3-hydroxypropyl]-4-oxo-2-azetidinyl]phenoxy]propyl]amino]-3,5-dihydroxy-7-oxoheptyl]-1,2,3,7,8,8a-hexahydro-3,7-dimethyl-1-naphthalenyl ester, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 760972-22-3 HCAPLUS

CN Butanoic acid, 2,2-dimethyl-, (1S,3R,7S,8S,8aR)-8-[(3R,5R)-7-[[2-[4-[(2S,3R)-1-(4-fluorophenyl)-3-[(3S)-3-(4-fluorophenyl)-3-hydroxypropyl]-4-oxo-2-azetidinyl]phenyl]ethyl]amino]-3,5-dihydroxy-7-oxoheptyl]-1,2,3,7,8,8a-hexahydro-3,7-dimethyl-1-naphthalenyl ester (9CI) (CA INDEX NAME)

RN 760972-23-4 HCAPLUS 1-Naphthaleneheptanoic acid, 8-(2,2-dimethyl-1-oxobutoxy)- 1,2,6,7,8,8a-hexahydro- β , δ -dihydroxy-2,6-dimethyl-, 2-[4-[(2S,3R)-1-(4-fluorophenyl)-3-[(3S)-3-(4-fluorophenyl)-3-hydroxypropyl]-4-oxo-2-azetidinyl]phenoxy]ethyl ester, (β R, δ R,1S,2S, δ R,8S,8aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 760972-24-5 HCAPLUS

CN 1-Naphthaleneheptanoic acid, 8-(2,2-dimethyl-1-oxobutoxy)1,2,6,7,8,8a-hexahydro-β,δ-dihydroxy-2,6-dimethyl-,
3-[4-[(2S,3R)-1-(4-fluorophenyl)-3-[(3S)-3-(4-fluorophenyl)-3-hydroxypropyl]-4-oxo-2-azetidinyl]phenoxy]-3-oxopropyl ester,
(βR,δR,1S,2S,6R,8S,8aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-B

RN 760972-25-6 HCAPLUS

CN 1-Naphthaleneheptanoic acid, $8-(2,2-\text{dimethyl}-1-\text{oxobutoxy})-1,2,6,7,8,8a-\text{hexahydro}-\beta,\delta-\text{dihydroxy}-2,6-\text{dimethyl}-,\\ 2-[[4-[(2S,3R)-1-(4-\text{fluorophenyl})-3-[(3S)-3-(4-\text{fluorophenyl})-3-\text{hydroxypropyl}]-4-\text{oxo}-2-\text{azetidinyl}]\text{phenoxy}]\text{dimethylsilyl}]\text{ethylester, } (\beta R, \delta R, 1S, 2S, 6R, 8S, 8aR)-(9CI) (CA INDEX NAME)$

RN 760972-26-7 HCAPLUS

CN Butanoic acid, 2,2-dimethyl-, (1s,3R,7s,8s,8aR)-8-[(3R,5R)-7-[[2-[[4-[(2s,3R)-1-(4-fluorophenyl)-3-[(3s)-3-(4-fluorophenyl)-3-hydroxypropyl]-4-oxo-2-azetidinyl]phenoxy]dimethylsilyl]ethyl]amin o]-3,5-dihydroxy-7-oxoheptyl]-1,2,3,7,8,8a-hexahydro-3,7-dimethyl-1-naphthalenyl ester (9CI) (CA INDEX NAME)

IT 760972-12-1P

(preparation of azetidinones for use in pharmaceutical compns. for treatment of vascular diseases)

RN 760972-12-1 HCAPLUS

CN Butanoic acid, 2-methyl-, (1S,3R,7S,8S,8aR)-8-[(3R,5R)-3,5-dihydroxy-7-oxo-7-[[3-[4-[(2S,3R)-4-oxo-1-phenyl-3-(3-phenylpropyl)-2-azetidinyl]phenoxy]propyl]amino]heptyl]-1,2,3,7,8,8a-hexahydro-3,7-dimethyl-1-naphthalenyl ester, (2S)-(9CI) (CA INDEX NAME)

IC ICM C07D403-12

ICS C07D205-08; A61K031-397; A61P003-06

CC 26-5 (Biomolecules and Their Synthetic Analogs)

Section cross-reference(s): 1, 63

IT 760972-15-4P 760972-16-5P 760972-17-6P

760972-18-7P 760972-19-8P 760972-20-1P

760972-21-2P 760972-22-3P 760972-23-4P

760972-24-5P 760972-25-6P 760972-26-7P

(claimed compound; preparation of azetidinones for use in pharmaceutical compns. for treatment of vascular diseases)

IT 760972-12-1P

(preparation of azetidinones for use in pharmaceutical compns. for treatment of vascular diseases)

REFERENCE COUNT:

1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE

IN THE RE FORMAT

L7 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2004:759822 HCAPLUS

DOCUMENT NUMBER:

141:260450

TITLE:

Processes for preparation of substituted

azetidinone compounds, formulations containing

them and uses thereof

INVENTOR(S):

Burnett, Duane A.; Clader, John W.

PATENT ASSIGNEE(S):

Schering Corporation, USA U.S. Pat. Appl. Publ., 30 pp.

SOURCE: U.S. Pat. App. CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------|------|----------|-----------------|--------------|
| US 2004180861 | A1 | 20040916 | US 2004-792346 | 2004 |
| CA 2517572 | AA | 20040923 | CA 2004-2517572 | 0303 2004 |
| WO 2004081003 | A1 | 20040923 | WO 2004-US6428 | 0303 |

USHA SHRESTHA EIC 1700 REM 4B28

```
2004
                                                                                                       0303
             W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ,
                   CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG,
             ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, RY, KG, KZ, MD, RU, TJ, TM, AT, RE, RG, CH, CY
                   AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY,
                   CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC,
                   NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM,
                   GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                                                20051207
                                                                  EP 2004-716913
       EP 1601669
                                       Α1
                                                                                                       2004
                                                                                                       0303
             R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,
                   MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ,
                   EE, HU, PL, SK
PRIORITY APPLN. INFO.:
                                                                   US 2003-452725P
                                                                                                       2003
                                                                                                       0307
                                                                   WO 2004-US6428
                                                                                                       2004
                                                                                                       0303
```

OTHER SOURCE(S):

MARPAT 141:260450

GΙ

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT

The present invention provides substituted azetidinone compds. I AB [X1 = Xm; X2 = Cq; X3 = Yn; X4 = Cr; X5 = Zp; X, Y, Z = CH2,CH-alkyl, C(Alkyl)2; Q1, Q2 = H, (C0-30-alkylene)-G, OR6, O2CR6, OCO2R9, O2CNR6R7, L-M; Q3 = 1 - 5 substituents, selected from alkyl, alkenyl, alkynyl, (C0-30-alkylene)-G, (C0-10-alkylene)-OR6, (C0-10-alkylene)-C(:0)R6, (C0-10-alkylene)-C02R6, (C0-10-alkylene)O2CR6, CH:CHCOR6, CH:CHCO2R6, C.tplbond.CCO2R6, C.tplbond.CC(:0)R6, etc.; Q4 = ; Q5 = ; G = sugar, oligo sugar, amino sugar, amino acid, oligopeptide (2 - 9 residues), trialkylammoniumalkyl, SO3H; L = OC(:0)C6H4C(:0)-4, OCO(:O)(CH2)x1C(:O), (CH2)x2C(:O), O(CH2)x3C(:O), OSiMe2(CH2)x4C(:0), OSiMe2(CH2)x5OC(:0), etc.; M = statin linked through O (atorvastatin, simvastatin); R2, R3 = H, alkyl, aryl; R6, R7, R8 = H, alkyl, aryl, aralkyl; R9 = alkyl, aryl, aralkyl; R1 0 = H, alkyl; q = 0, 1; r = 0,1; m, n, p = 0 - 4 (with the proviso that, at least one of q and r = 1, and the sum of m + n + 1p + q + r = 1 - 6; with the proviso that when p = 0, r = 1 and the sum of m + q + n = 1 - 5; x1 - x11 = 1 - 10; with the proviso that at least one of Q1 - Q5 = L-M, mono-, di-, tri-, tetrasugar, sugar acid, amino sugar, amino acid, etc.], formulations and processes for preparing the same which can be useful for treating vascular conditions such as atherosclerosis or

hypercholesterolemia, diabetes, obesity, stroke, demyelination and lowering plasma levels of sterols and/or stanols in a subject. Thus, azetidinone conjugate II can be prepared from ezetimibe acetate (III) via acylation with glutaric anhydride and esterification with simvastatin (IV).

TT 756821-84-8P 756821-86-0P 756821-90-6P 756821-92-8P 756821-93-9P 756821-94-0P 756821-95-1P 756821-96-2P

(preparation of substituted azetidinone compds. useful for treating vascular conditions) $\begin{tabular}{ll} \hline \end{tabular}$

RN 756821-84-8 HCAPLUS

CN Pentanedioic acid, 4-[(2S,3R)-3-[(3S)-3-(acetyloxy)-3-(4-fluorophenyl)propyl]-1-(4-fluorophenyl)-4-oxo-2-azetidinyl]phenyl (2S,4S,4aR,5S,6S)-2,3,4,4a,5,6-hexahydro-6-methyl-4-[(2S)-2-methyl-1-oxobutoxy]-5-[2-[(2R,4R)-tetrahydro-4-hydroxy-6-oxo-2H-pyran-2-yl]ethyl]-2-naphthalenyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 756821-86-0 HCAPLUS

CN Pentanedioic acid, 4-[(2S,3R)-3-[(3S)-3-(acetyloxy)-3-(4-fluorophenyl)propyl]-1-(4-fluorophenyl)-4-oxo-2-azetidinyl]phenyl (2R,4R)-2-[2-[2-(4-fluorophenyl)-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrol-1-yl]ethyl]tetrahydro-6-oxo-2H-pyran-4-yl ester (9CI) (CA INDEX NAME)

__ F

RN 756821-90-6 HCAPLUS

Butanoic acid, 4-[4-[(2S,3R)-3-[(3S)-3-(acetyloxy)-3-(4-fluorophenyl)propyl]-1-(4-fluorophenyl)-4-oxo-2-azetidinyl]phenoxy]-, (2R,4R)-2-[2-[2-(4-fluorophenyl)-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrol-1-yl]ethyl]tetrahydro-6-oxo-2H-pyran-4-yl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

||

RN 756821-92-8 HCAPLUS

CN Pentanedioic acid, 4-[(2S,3R)-3-[(3S)-3-(acetyloxy)-3-(4-fluorophenyl)propyl]-1-(4-fluorophenyl)-4-oxo-2-azetidinyl]phenyl (2S,4R)-2-[2-[(1S,2S,6R,8S,8aR)-8-(2,2-dimethyl-1-oxobutoxy)-1,2,6,7,8,8a-hexahydro-2,6-dimethyl-1-naphthalenyl]ethyl]tetrahydro-6-oxo-2H-pyran-4-yl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 756821-93-9 HCAPLUS

CN Pentanedioic acid, 4-[(2S,3R)-1-(4-fluorophenyl)-3-[(3S)-3-(4-fluorophenyl)-3-hydroxypropyl]-4-oxo-2-azetidinyl]phenyl 2-[2-[2-(4-fluorophenyl)-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrol-1-yl]ethyl]tetrahydro-6-oxo-2H-pyran-4-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

USHA SHRESTHA EIC 1700 REM 4B28

_ F

RN 756821-94-0 HCAPLUS
CN Butanoic acid, 4-[4-[(2S,3R)-1-(4-fluorophenyl)-3-[(3S)-3-(4-fluorophenyl)-3-hydroxypropyl]-4-oxo-2-azetidinyl]phenoxy]-, 2-[2-[2-(4-fluorophenyl)-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrol-1-yl]ethyl]tetrahydro-6-oxo-2H-pyran-4-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 2-A

0

RN 756821-95-1 HCAPLUS

CN Pentanedioic acid, 4-[3-[3-(acetyloxy)-3-(4-fluorophenyl)propyl]-1-(4-fluorophenyl)-4-oxo-2-azetidinyl]phenyl 2-[2-[1,2,6,7,8,8a-hexahydro-2,6-dimethyl-8-(2-methyl-1-oxobutoxy)-1-naphthalenyl]ethyl]tetrahydro-6-oxo-2H-pyran-4-yl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c} F \\ CH-CH_2-CH_2 \\ OAc \\ O \\ O-C-(CH_2)_3-C-O \end{array}$$

RN 756821-96-2 HCAPLUS

CN Pentanedioic acid, 4-[3-[3-(acetyloxy)-3-(4-fluorophenyl)propyl]-1-(4-fluorophenyl)-4-oxo-2-azetidinyl]phenyl 2,3,4,4a,5,6-hexahydro-6-methyl-4-(2-methyl-1-oxobutoxy)-5-[2-(tetrahydro-4-hydroxy-6-oxo-2H-pyran-2-yl)ethyl]-2-naphthalenyl ester (9CI) (CA INDEX NAME)

IC ICM A61K031-675

ICS A61K031-655; A61K031-397

INCL 514079000; 514151000; 514210020; 540200000

CC 26-6 (Biomolecules and Their Synthetic Analogs) Section cross-reference(s): 1, 25, 33, 34, 63 756821-84-8P 756821-86-0P 756821-90-6P ΙT

756821-92-8P 756821-93-9P 756821-94-0P 756821-95-1P 756821-96-2P

(preparation of substituted azetidinone compds. useful for treating vascular conditions)

ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:759821 HCAPLUS

DOCUMENT NUMBER:

141:254573

TITLE:

Substituted azetidinone compounds, processes for preparing the same, formulations and uses

thereof

INVENTOR(S):

Burnett, Duane A.; Clader, John W.

PATENT ASSIGNEE(S):

Schering Corporation, USA U.S. Pat. Appl. Publ., 35 pp.

SOURCE:

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| PATEN' | PATENT NO. | | | KIND DATE | | | | APPL | | DATE | | | |
|------------|-----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|--------------------------------------------------------------------|---------------------------------------------------------------------------|---------------------------------------------------------------------------|--------------------------------------------------------------------|---------------------------------------------------------------------------|--------------------------------------------------------------------------|--------------------------------------------------------------------|-------------------------------------------------------------------|------------------------------------------------------|-------------------------------------------------------------|
| US 20 | US 2004180860 | | | 1 20040916 | | | | US 2 | | 2004 | | | |
| CA 25 | CA 2517573 | | | | AA 20040923 | | | CA 2 | | 0303 | | | |
| | 3. 2027070 | | | | | | | | | 2004 0303 | | | |
| WO 20 | 0408100 |)4 | A1 | | 20040923 | | WO 2004-US6555 | | | | | | 2004 0303 |
| RI | CA, ES, KE, MG, PT, TT, W: BW, AM, CZ, NL, | CH, C FI, G KG, K MK, M RO, R TZ, U GH, G AZ, B DE, D PL, P GN, G | L, AM, N, CO, B, GD, P, KR, N, MW, U, SC, A, UG, M, KE, Y, KG, K, EE, T, RO, Q, GW, A1 | CR, GE, KZ, MX, SD, US, LS, KZ, ES, ML, | CU, GH, LC, MZ, SE, UZ, MW, MD, FI, SI, MR, | CZ, GM, LK, NA, SG, VC, MZ, RU, FR, SK, NE, | DE, HR, LR, NI, SK, VN, SD, TJ, GB, TR, | DK, HU, LS, NO, SL, YU, SL, TM, GR, BF, TD, | DM, ID, LT, NZ, SY, ZA, SZ, AT, HU, BJ, TG | DZ, IL, LU, OM, TJ, ZM, TZ, BE, IE, CF, | EC, IN, LV, PG, TM, ZW UG, BG, IT, CG, | EE, IS, MA, PH, TN, ZM, CH, LU, | BZ, EG, JP, MD, PL, TR, ZW, CY, MC, |
| EP 16 | : AT, | BE, C | H, DE, E, SI, | DK, | ES, | FR, | GB, | GR, | IT, | LI, | LU, | | |
| PRIORITY A | EE, | HU, P | | , | - · • | , | • | US 2 | | | | | 2003 0307 |
| | | | | | | | WO 2004-US6555 | | | | | 1 | W 2004 |

OTHER SOURCE(S):

MARPAT 141:254573

GΙ

This invention provides for pharmaceutical formulations and processes for preparing substituted azetidinone compds. of the general form G-L-M [G = azetidinone moiety, such as I; L = linking group, such as -OCO(CH2)2NH-; M = pharmaceutically active moiety, such as simvastatin], which can be useful for treating vascular conditions such as atherosclerosis or hypercholesterolemia, diabetes, obesity, stroke, demyelination, lowering plasma levels of sterols, stanols and/or cholesterol and regulating levels of amyloid β peptides or treating Alzheimer's disease. A hypothetical in vivo evaluation of hypercholesterolemic activity using Golden Syrian hamster was presented.

IT **756879-00-2DP**, analogs

(azetidinones for use in pharmaceutical compns. for treatment of vascular diseases)

RN 756879-00-2 HCAPLUS

CN β -Alanine, N-[[(3R,4S,4aR,5S,7R)-5-(2,2-dimethyl-1-oxobutoxy)-3,4,4a,5,6,7-hexahydro-3,7-dimethyl-4-[2-[(2R,4R)-tetrahydro-4-hydroxy-6-oxo-2H-pyran-2-yl]ethyl]-1-naphthalenyl]carbonyl]-, 4-[(2S,3R)-3-[(3S)-3-(acetyloxy)-3-(4-fluorophenyl)propyl]-1-(4-fluorophenyl)-4-oxo-2-azetidinyl]phenyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

_ Et